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Influence of Bulletins, News Stories, and Circular Letters upon Farm Practices, with Special Reference to Methods of Bulletin Distribution

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INFLUENCE OF BULLETINS, NEWS STORIES, AND CIRCULAR LETTERS UPON FARM PRACTICES WITH SPECIAL REFERENCE TO METHODS OF BULLETIN DISTRIBUTION*

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With Special Reference to Methods of Bulletin Distribution

Introduction

There appear to be wide differences of opinion among deans, directors of extension services, college editors, and others regarding the best ways of distributing bulletins to farmers. The Office of Cooperative Extension Work has cooperated with a committee* appointed by the Association of Agricultural College Editors in 1926 in a study of this problem.

The attitude toward methods of bulletin distribution may be affected by the conception of the place bulletins occupy in the whole scheme of extension means and agencies. By reviewing the available data on the relative effectiveness of bulletins as compared with news stories, circular letters, farm visits, result demonstrations, general meetings, and the other means commonly employed in extension teaching, the problem of bulletin distribution can perhaps be approached with a more nearly common point of view.

The data were collected by the survey method, all of the farms in representative areas, usually comprising two or more townships each, being visited by a representative of the State or Federal extension office for the purpose of obtaining comparable information regarding the use made by the farm family of the cooperative extension system. Those taking part in the field work were previously acquainted with the extension programs and activities in the areas involved, over a period of years. The questionnaire cards were checked each day for errors and inconsistencies, and the necessary corrections were made, or additional information was obtained. Two hundred and seventeen representatives of the State extension services and ten members of the Extension Service of the United States Department of Agriculture have participated in the collection of the field data, obviating the possibility of the data being colored by the personal views of a few people.

To insure uniformity in data the terminology approved by the Land-Grant Colleges and the United States Department of Agriculture has been followed in all cases. In addition, the States involved entrusted the direction of the survey parties to the representative of the Federal extension service, who took part in the field work in every area. In other words the best-known methods of collecting scientific data of this character have been employed.

Relative Influence of Methods

In Figure 1 data are presented regarding the means and agencies (teaching methods) credited with having in any way influenced the adoption of 22,704 improved practices by farmers and farm women on 7,802 farms of 22 counties in 10 States. Inasmuch as we are interested in the relative influence of the means rather than their total influence the data have been corrected to the basis 100 per cent equals total influence of all methods. In actual practice,

*This committee consisted of Andrew W. Hopkins, Wisconsin, (Chairman); W. P. Kirkwood, Minnesota; and J. E. McClintock, Ohio.

however, several means and agencies often contribute to the adoption of a single practice.

Indirect spread from one neighbor to another was reported in the case of 22 practices out of 100. Next in order are method demonstrations, 14.5 practices out 100; general meetings, 13.9; farm and home visits, 12.80; news stories, 10.2; result demonstrations, adult and junior, 8.2; bulletins, 6.5; and office calls, 6.5. These eight means account for the adoption of 94.6 practices out of 100, credit for the remaining 5.4 practices being distributed among circular letters, exhibits, radio talks, correspomdence, extension schools, leader-training meetings, telephone calls, and study courses. Considering news stories, bulletins, and circular letters together, as these are the means in which this group is most vitally interested, we find that 18.2 practices out of 100 (nearly one practice in five) were credited to this group of methods.

While these percentages do not measure the total influence of the different methods employed in the conduct of extension work, they are undoubtedly indicative of their relative effectiveness. Methods will naturally vary in effectiveness when handled by different extension workers. It is also probable that greater emphasis was placed upon certain methods than others. The interdependence of the different methods must also be kept in mind. The news story may report results of a field demonstration or relate to a community meeting. The office call may follow a talk at a meeting or may result from publicity. It must, of course, be recognized that these data deal with the practical use of teaching methods employed by a representative group of extension workers under a wide range of field conditions rather than with the theoretical value of teaching methods under ideal or laboratory conditions.

Inherent Value of Individual Methods

In order to bring out more clearly the intrinsic value of the different means employed in extension teaching it is desirable to study each separately in the light of the range of its effectiveness in the different areas studied, and in the different subject-matter fields. Even though a method is of high inherent value theoretically, it is of little practical use in the field if the rank and file of extension workers are unable to apply it successfully. If the low returns from a particular method are due to lack of emphasis or poor handling rather than to low inherent value it is fair to assume that some of the agents and specialists in the States and counties involved in the studies would have discovered ways of greatly increasing the returns from that method.

News stories.- Although 1 out of 10 practices adopted in the 9 States was credited to news stories there is a wide variation in the effectiveness of this means -- the greatest influence being in State "K" where 22 practices out of 100 were credited to news stories, and the least influence in State "A" with but 3.8 per cent of the practices so credited. (Figs. 2 and 3.) News stories have exerted an important influence on the adoption of practices throughout the States in soils, field crops, livestock, and marketing in agriculture, and food preparation in home economics. The lines of subject matter least influenced by news stories are tree fruits, rural engineering, clothing, and home improvement. Extension workers sometimes lose sight of the large

Fig. 1. - Relative Influence of Methods
Upon Adoption of Practices

Prepared from data of 22,704 Practices
on 7,802 Farms in 10 States

Method	Percentage [a] of practices influenced	
		4 8 12 16 20 24
Method demonstrations [b] (7 States)	14.5	
Adult result demonstrations [b] (7 States)	5.3	
Junior result demonstrations	2.9	
General meetings [b] (7 States)	13.9	
News Stories	10.2	
Bulletins	6.5	
Circular letters	1.5	
Exhibits [b] (7 States)	0.7	
Radio [b] (2 States)	0.2	
Farm or home visits	12.8	
Office calls	6.5	
Correspondence	1.1	
Extension schools	0.9	
Leader-training meetings	0.6	
Telephone calls	0.5	
Study courses	0.1	
Indirect influence	22.0	

(a) Corrected to the basis 100 per cent equals total influence all methods.

(b) In 3 States adult result and method demonstrations were not separated. Method demonstration meetings and general meetings were also combined. Exhibits were not added to list of methods in first 3 States studied.

number of people who read daily, weekly, and farm papers. The relatively small cost of news stories is another important consideration.

Bulletins.- That farmers and farm women read and make use of the bulletin information published by the colleges and experiment stations and the United States Department of Agriculture is evidenced by the substantial percentage (6.5 per cent) of practices adopted in connection with which the influence of bulletins was reported. The influence of bulletins is fairly uniform throughout the areas studied in the entire field of subject matter involved. (Figs. 2 and 3). Greatest influence of bulletins was reported in areas "G" and "H" and least influence in area "L." Vegetable growing, poultry, and food preservation lead the other subject-matter lines in the influence of bulletins upon adoption of improved practices, with soy beans, marketing, and clothing on the opposite side of the scale.

Circular letters.- Farmers and farm women were in agreement in practically all of the areas regarding the small influence of the printed or stenciled circular letter. (Fig. 2.) In only one State, "G", did circular letters influence the adoption of more than 5 practices out of 100. The small influence of circular letters also holds throughout all lines of subject matter, both agriculture and home economics. (Fig. 3.) In only three lines of subject matter,- alfalfa, vegetable growing, and marketing, were more than 3 practices out of 100 influenced by circular letters.

Influence of Subject Matter on Methods

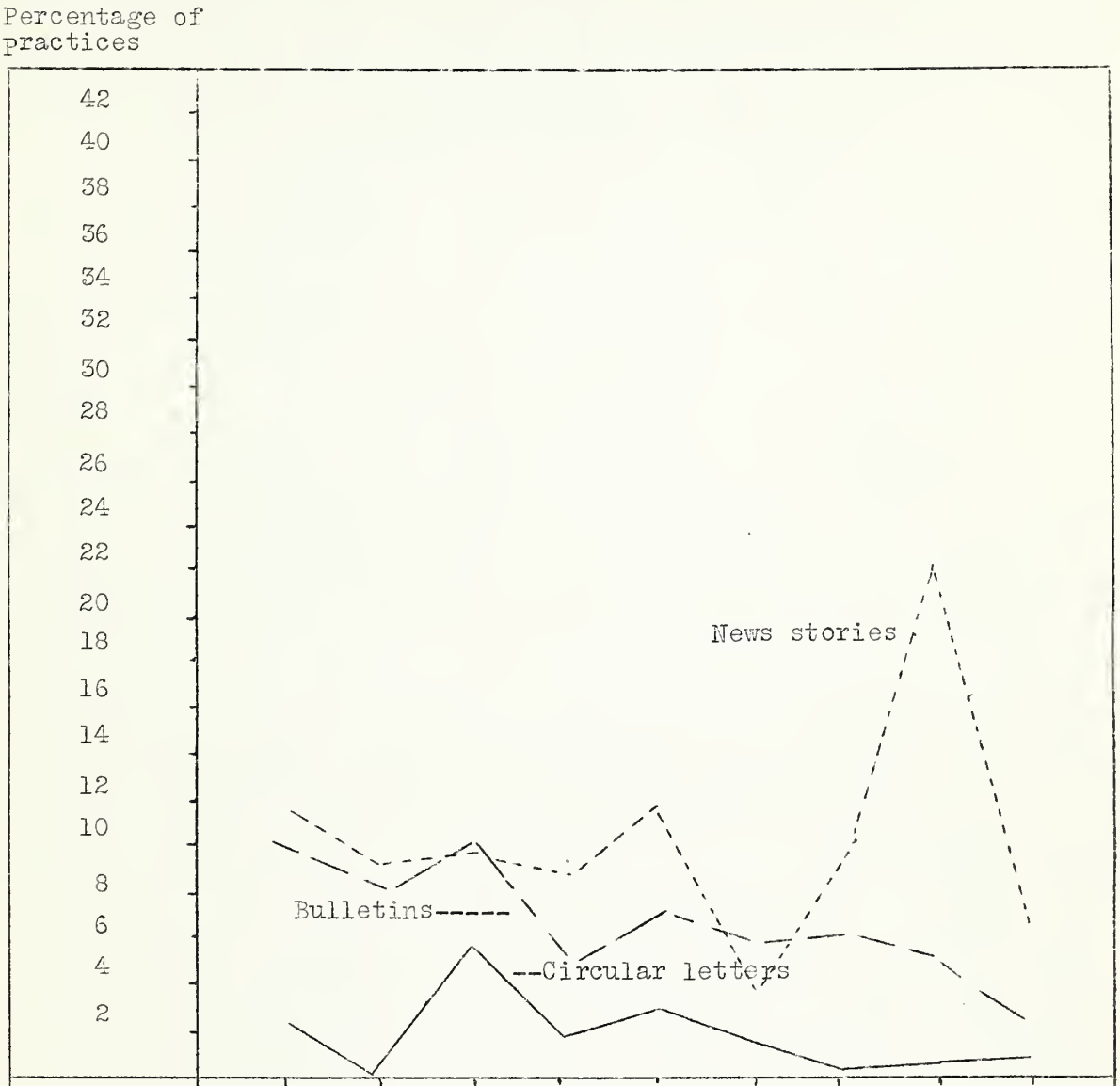
It has been seen that the influence of news stories, bulletins, and circular letters varies considerably with the different subject-matter lines of work. This is also true of the other means and agencies employed in extension teaching.

Where similar subject matter is involved the influence of the various teaching methods upon adoption of practices is almost identical. Take the case of cotton and potatoes, crops grown in widely separated sections of the country where supposedly different emphasis has been placed upon the various methods, but which present similar problems in the use of commercial fertilizer, good seed, insect and disease control, and the like. (Fig. 4.) The data were collected by different people, but practically the same percentage of practices was ascribed to the influence of the various methods in the case of both of these crops. Similar charts might be presented for the cereal crops, legumes, foods and nutrition and home management and home improvement.

When unlike subject-matter lines are contrasted -- alfalfa, poultry, and clothing, for example, -- the opposite is true. (Fig. 5.) There is a wide variation in the percentage of practices ascribed to the same methods for the three subject-matter lines.

Where news stories or bulletins have proved satisfactory in forwarding a given line of work, it is probable that the same methods will be about equally satisfactory when employed in a similar subject-matter line. Because news stories and bulletins may have been effective in influencing the adoption of practices in a particular subject-matter field it does not follow that equal satisfaction will attend their use in a dissimilar line of work.

Fig. 2. - Variation in Influence of Methods by States



State	H	C	G	D	J	A	I	K	L
	Percentage of practices								
Circular letters.	2.2	.0	5.6	1.9	3.0	1.8	.4	.4	.5
News stories.	11.6	9.1	9.7	9.0	12.0	3.8	8.9	22.0	6.2
Bulletins.	10.0	8.4	10.2	5.2	7.2	5.7	6.0	5.0	2.3

Fig. 5. - Variation in Influence of Methods

By Subject Matter

Prepared from data of 22,704 Practices on 7,802 Farms in 10 States

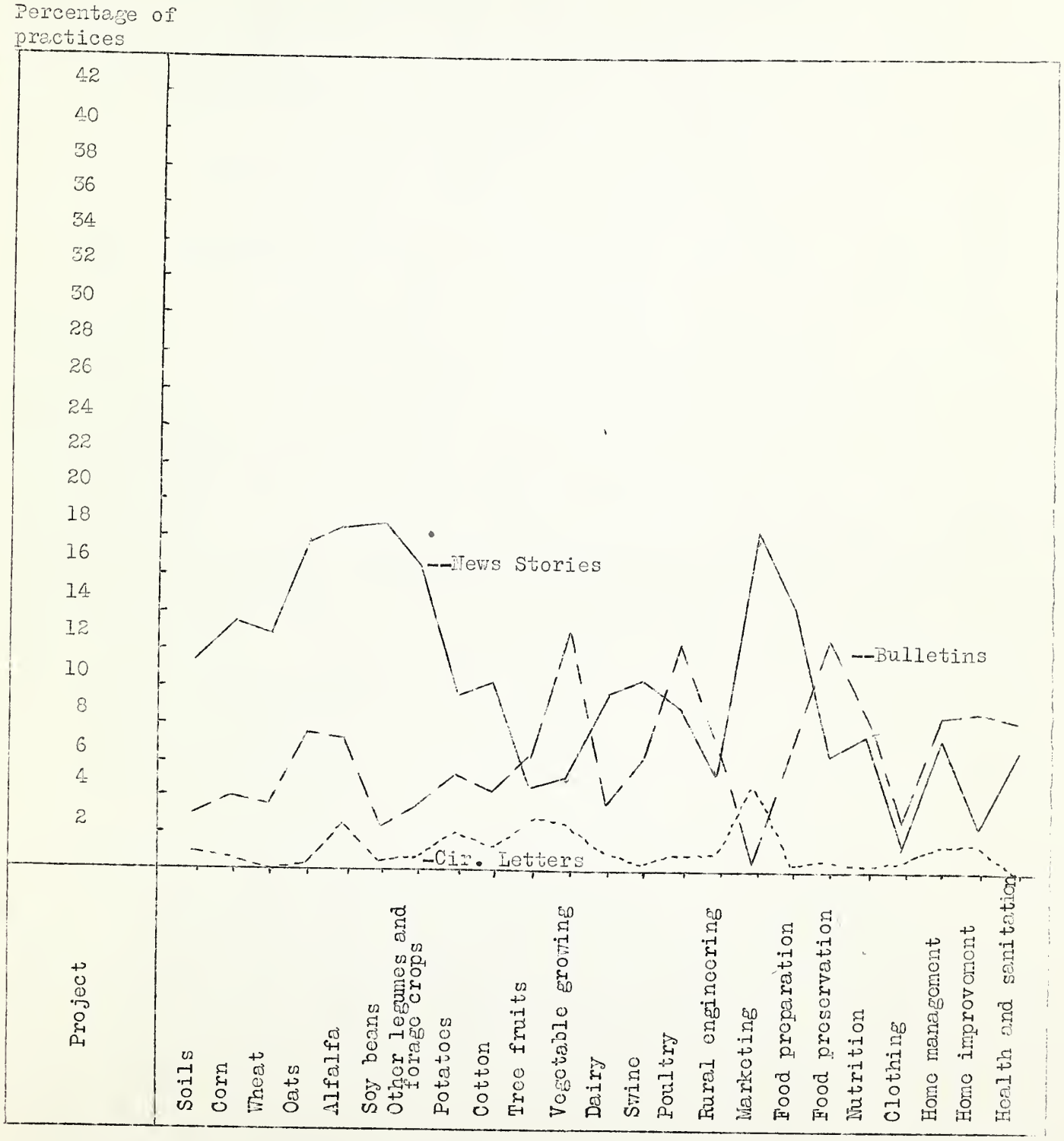
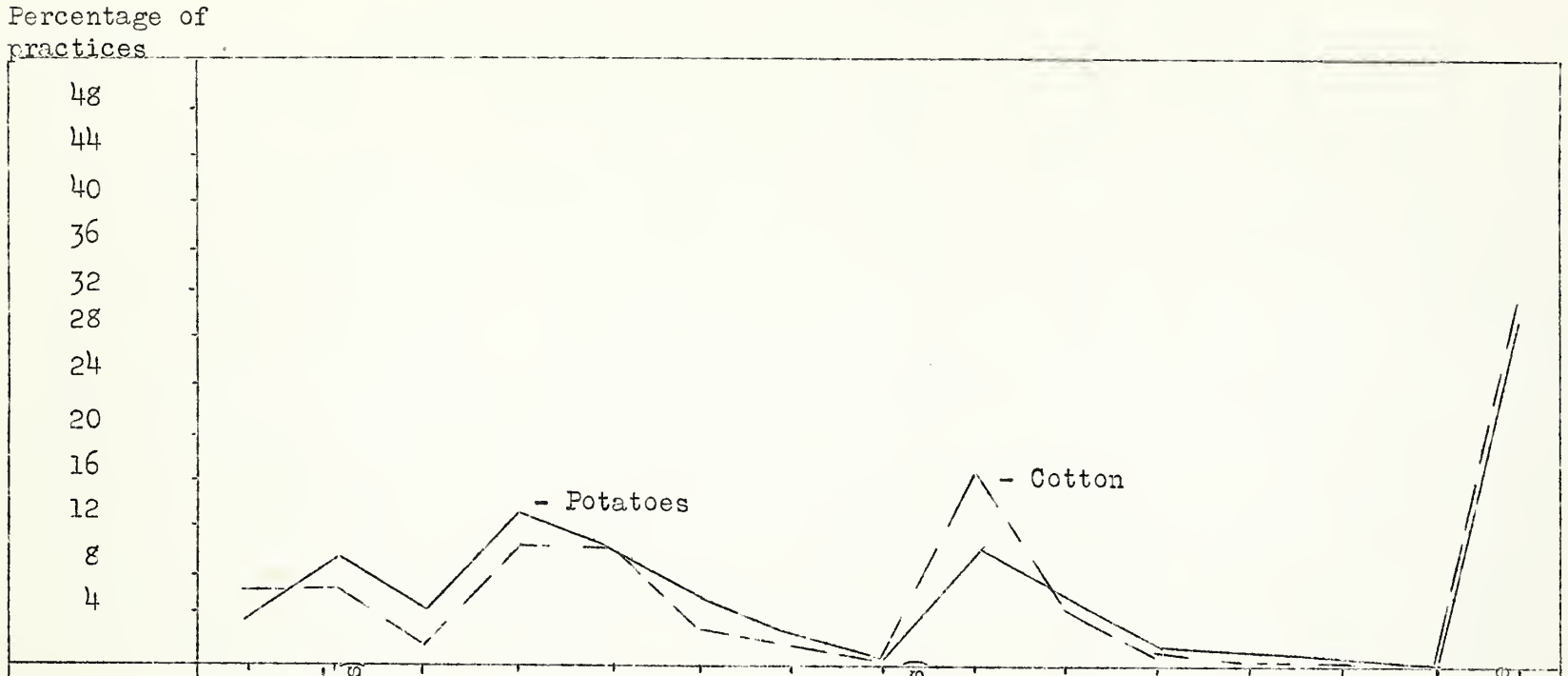


Fig. 4. - Subject Matter with Relation to Extension Methods

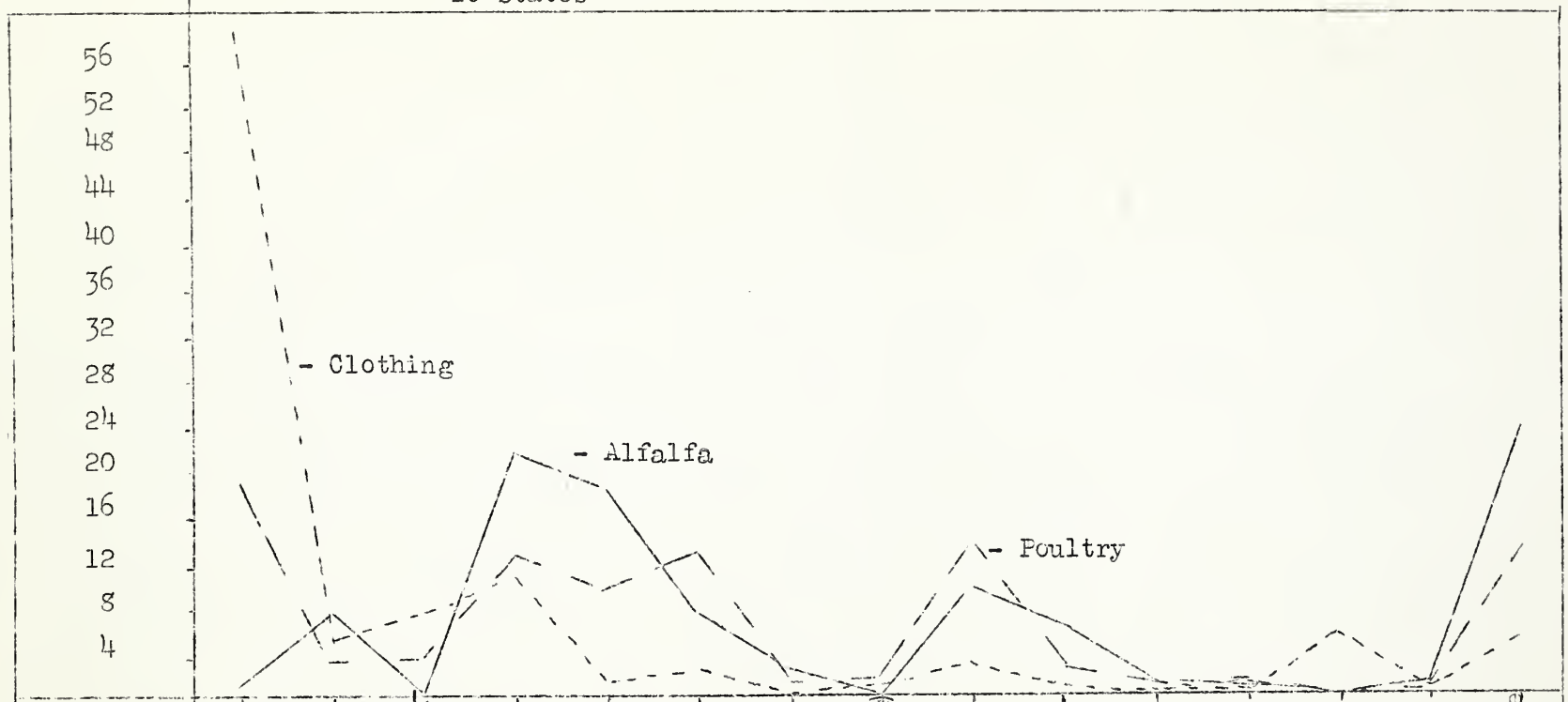
Prepared from data of 1168 Potato Practices and
936 Cotton Practices on 7,802 Farms in 10 States



METHOD	M. Demonstration (7 States)	Adult Result Demonstration (7 States)	Junior Result demonstration	General Meetings (7 States)	News Stories	Bulletins	Circular Letters	Exhibits (7 States)	Farm Visits	Office Calls	Correspondence	Ext. School	Leader Training Meetings	Telephone Calls	Indirect influence
	Percentages of practices														
Potatoes	4.7	9.8	5.1	13.7	9.6	5.7	2.0	.9	10.0	5.9	1.1	.6	.1	.4	30.4
Cotton	6.5	7.2	2.2	11.5	10.1	4.3	1.4	.7	16.8	6.5	.2	.7	.2	.1	31.7

Fig. 5. - Subject Matter with Relation to Extension Methods

Prepared from data of 752 Alfalfa Practices, 1688 Poultry Practices, and 1768 Clothing Practices in 10 States



METHOD	Method Demonstration	Adult Result Demonstration	Junior Result Demonstration	General Meetings (7 States)	News Story	Pulletins	Circular Letters	Exhibits (7 States)	Farm Visits	Office Calls	Correspondence	Extension Schools	Leader Training Meetings	Telephone Calls	Indirect Influence
Alfalfa	0.8	7.6	0.1	21.7	18.7	7.4	2.2	-	9.2	6.4	1.8	0.3	-	0.1	23.6
Poultry	19.3	3.9	3.6	12.7	9.9	12.4	1.1	1.7	13.1	3.2	1.6	1.1	-	0.4	13.8
Clothing	57.1	4.9	5.7	10.9	1.4	2.9	0.7	1.4	3.4	0.6	0.2	0.5	5.0	0.1	5.3

Exposures and Takes

Any comparison of the true worth of different methods must take into consideration the accessibility of these methods to the people to be influenced. If farmers do not receive bulletins they cannot be expected to be influenced by them. Special studies in two areas have dealt with the percentage of farmers exposed to the various methods as well as the percentage of farmers influenced by these methods to adopt better practices.

The data in Figure 6 are based upon information obtained from 424 nonselected alfalfa growers in one State. Approximately 60 per cent of the farmers had read extension news stories relating to alfalfa growing and 44 per cent of those reading them made use of the information contained in these stories. Alfalfa bulletins had been received by 39 per cent of all farmers, and 37 per cent of those reading the bulletins made practical use of the information acquired. The ratios of takes to exposures for these two means compare very favorably with similar ratios for result demonstrations, general meetings, and farm visits. Nearly one-fourth of the alfalfa growers had received circular letters on alfalfa growing and 20 per cent of those reading the circular letters used the information and considered it helpful. While the circular letter was much less effective than result demonstrations, general meetings, news stories, bulletins, and farm visits, it was nearly four times as effective as exhibits.

A similar study of the dairy project in another State (Fig. 7) would indicate that while bulletins are nearly as effective in teaching dairying as in teaching alfalfa growing, both news stories and circular letters are much less effective. Possibly this is because the more complicated subject matter involved in dairying is not so well adapted to treatment in the brief space available. The proportion of exposures which resulted in takes was practically the same for both alfalfa and dairying in the case of general meetings, bulletins, farm visits, exhibits, and indirect influence.

Returns Per Unit of Time

In the last analysis the comparative efficiency of the means and agencies employed in extension teaching will be determined by the cost of influencing the adoption of improved practices through their use.

In Figure 8, the percentage of time devoted to the various extension methods exclusive of time consumed in making reports and similar routine matters is contrasted to the percentage of practices ascribed to the influence of the same methods by farmers and farm women. For the purpose of this comparison the indirect influence has been distributed proportionately among the other means and agencies. Less than 4 per cent of extension workers' time is spent in writing news items, interviewing local editors, and the like, yet more than 13 per cent of the practices adopted were credited to the influence of news stories. Exhibits required slightly more time, but obtained less than 1 per cent of the results. Approximately the same amount of time was spent on circular letters and bulletin distribution, - a little less than 3 per cent each. Only 1.9 per cent of the practices were credited to the former while 8.4 per cent were credited to the latter.

On the basis of ratio of returns per unit of time (Fig. 9), news stories

Fig. 6. - Adoption of practices as related to exposures to methods

Prepared from data from 424 Alfalfa Growers

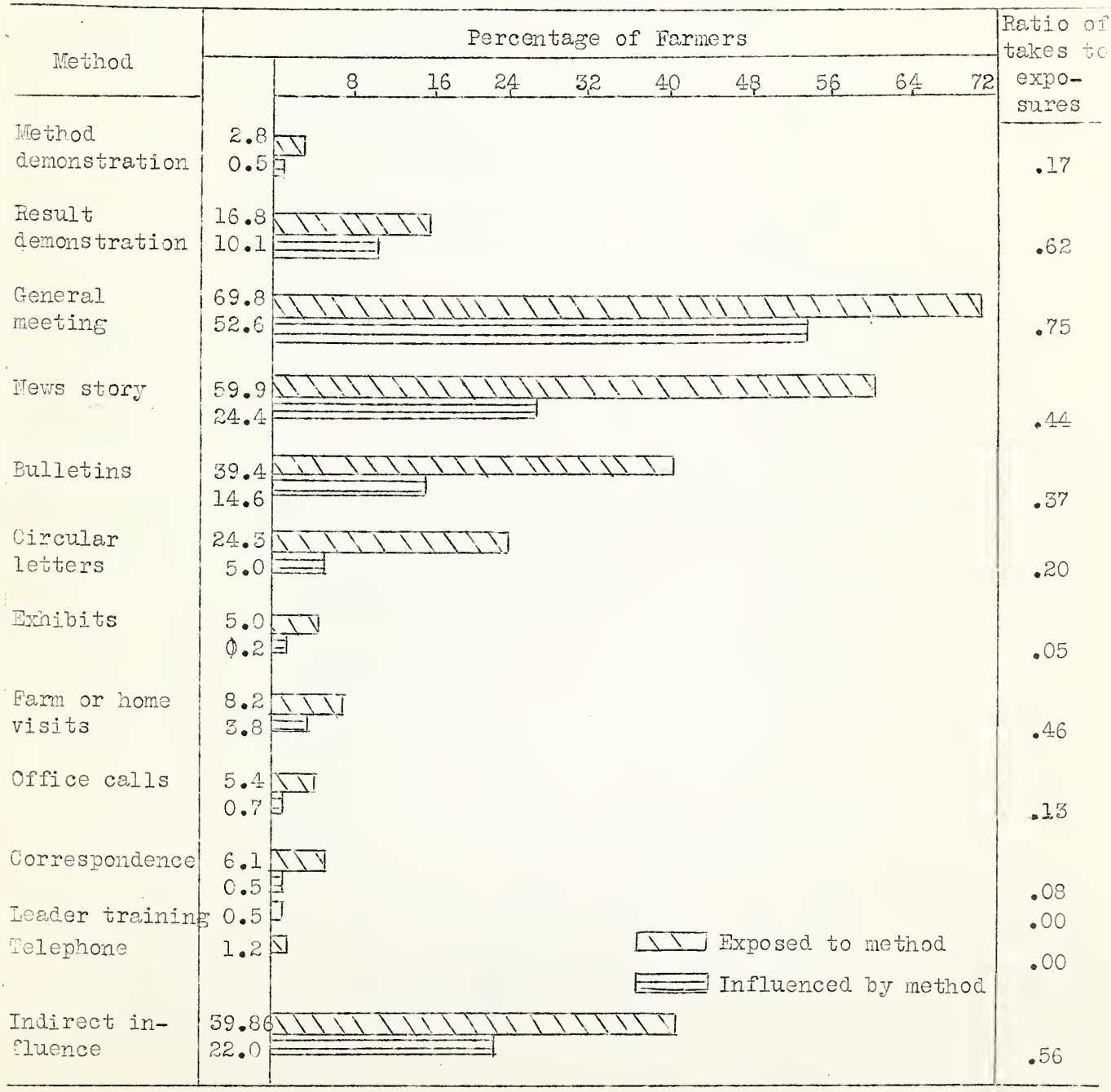


Fig. 7. - Adoption of practices as related to exposures to methods

Prepared from data from 192 Dairy Farms

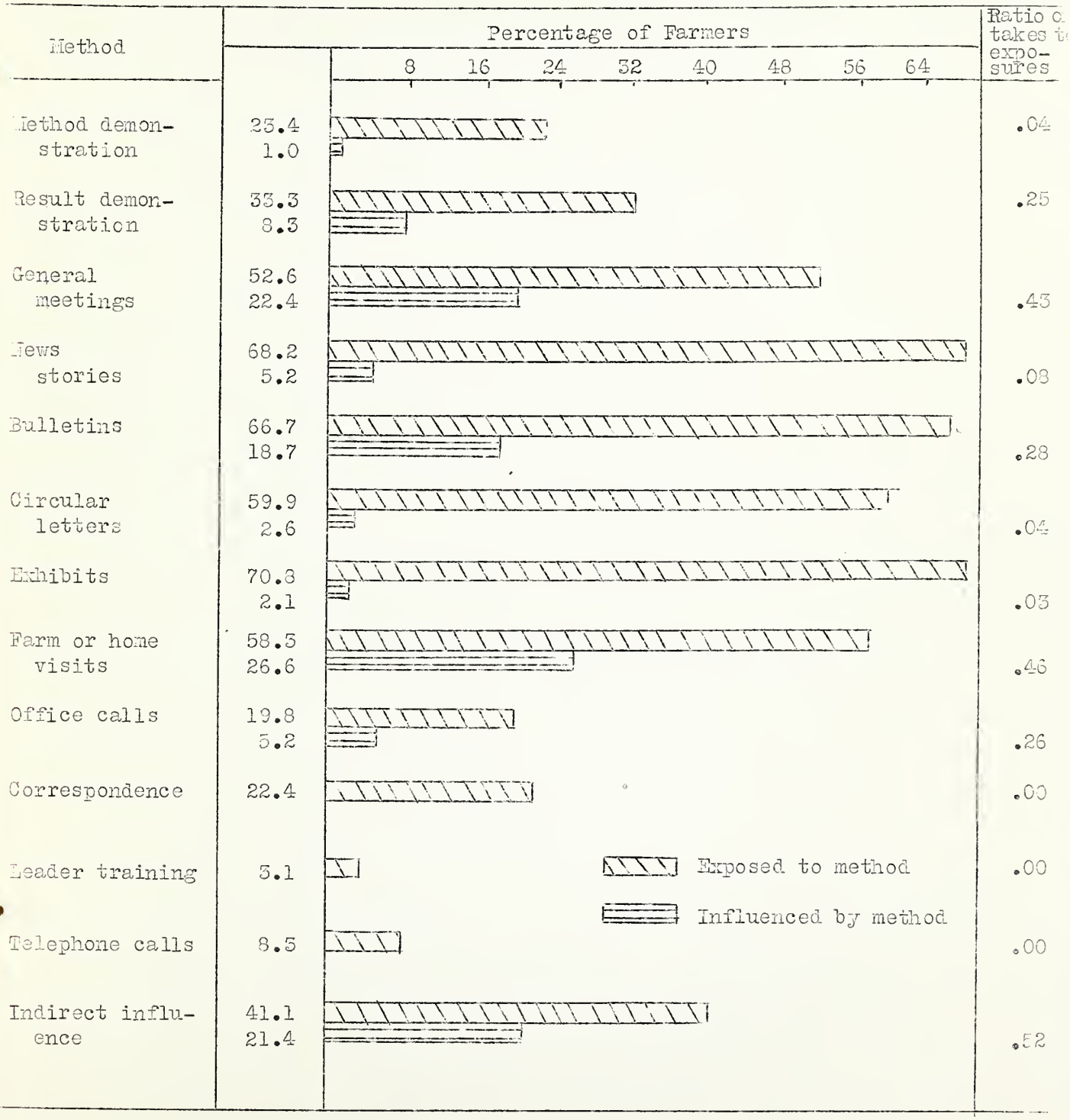
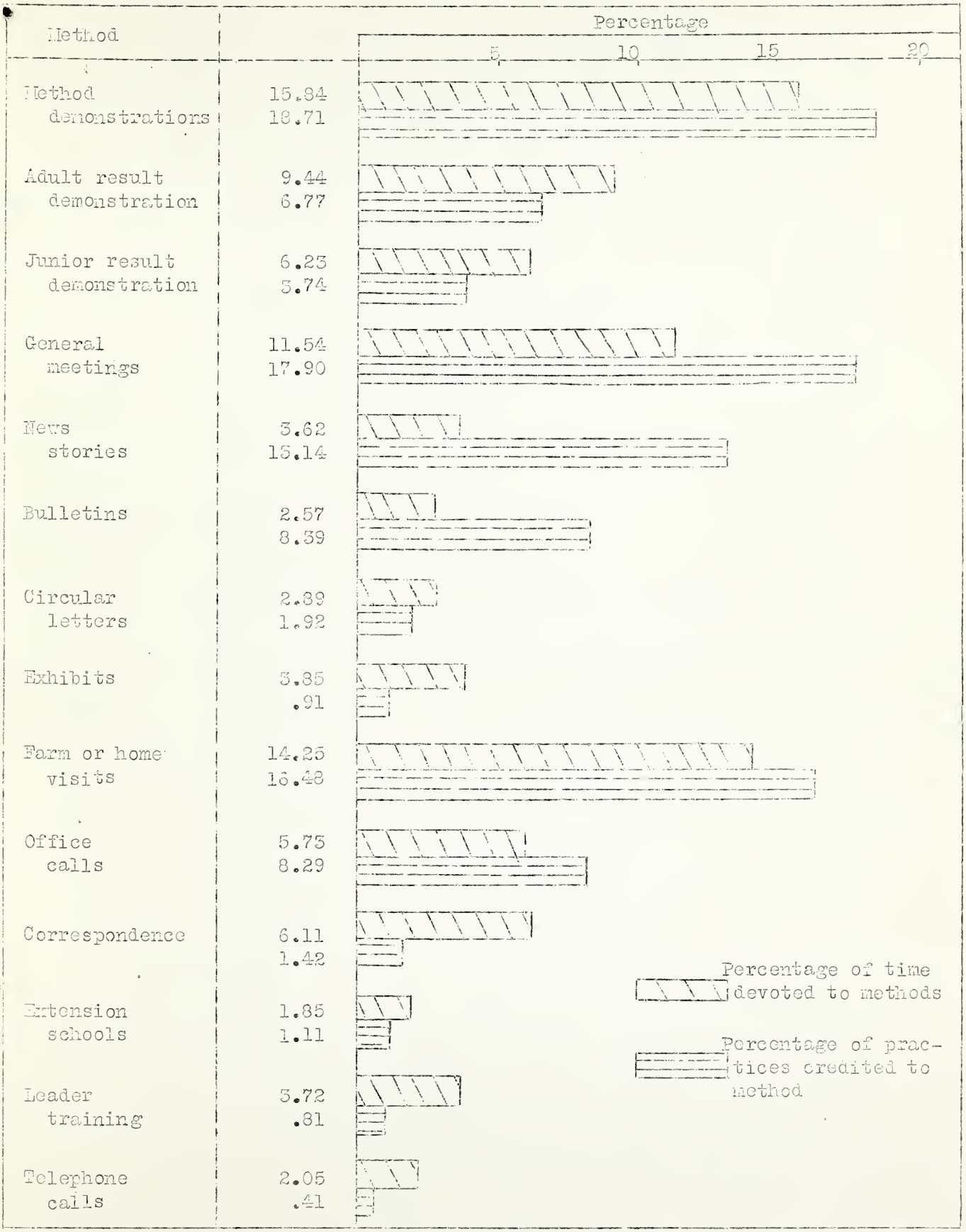


Fig. 8 - Practices adopted as related to time spent on methods
Prepared from data of 22,704 practices on 7,802 farms in 10 States



Time spent on methods is the average estimate of 368 county extension agents and 101 specialists in 10 States. 10.31 per cent of time chargeable to reports and other activities not included.

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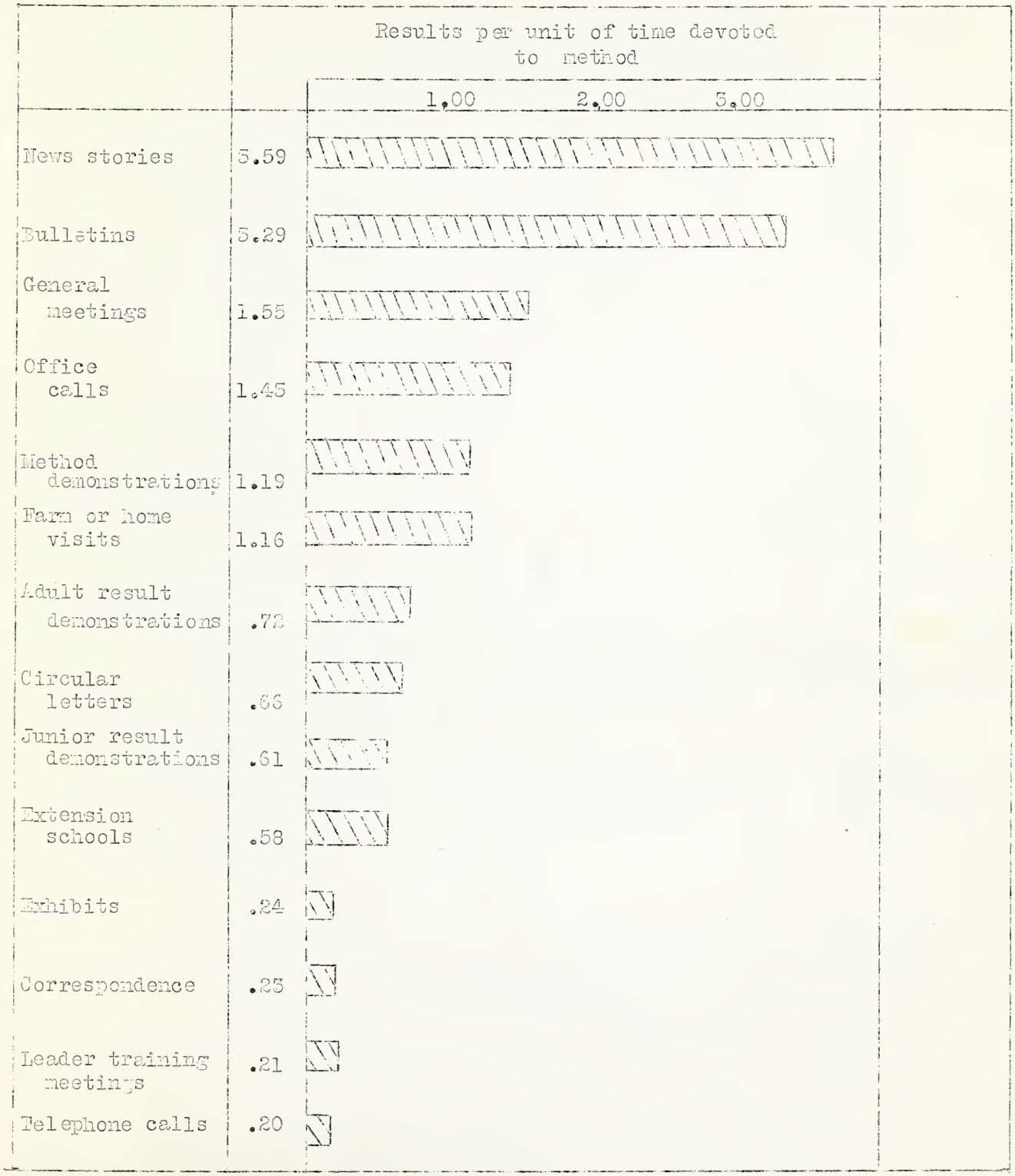
Fig. 9. - COMPARATIVE EFFICIENCY OF METHODS

Prepared from data from 22,704 Practices on 7,802 Farms in 10 States.



lead, followed closely by bulletins, the returns per unit of time for both of these methods being about five times that for a like amount of time devoted to circular letters. Circular letters yielded nearly three times the returns that resulted from the same time devoted to extension exhibits.

It does not necessarily follow that an extension worker can devote unlimited time to news stories, bulletin writing and distribution, or other highly efficient means, without decreased return per unit of time. However these methods should not be overlooked as effective means of enlarging the influence of result demonstrations, farm visits, and meetings.

One must also constantly keep in mind the interrelationship of the various methods. The news story must relate to something, - the demonstration, a meeting, the experience of a good farmer, the statement of a specialist, or the work of the experiment station. Many agents doubtless make the mistake of not placing sufficient emphasis on those means which expose large numbers of people to the influence of extension.

Methods of Bulletin Distribution

Now that we have seen the important place that bulletins fill in extension teaching and understand that this is due to the large number of farmers who receive them and to the high degree of effectiveness in relation to the small cost of bulletins, let us turn to the special study recently made of methods of distributing them.

The same plan has been followed in collecting the field data as in the case of the other studies, it being thought best to begin at the receiving end of the line rather than at the point of production. Representatives of the Federal and State extension services personally visited all the farms in representative areas of eight counties in Minnesota, Wisconsin, and Ohio, and obtained comparable data on the receipt and use of bulletins. In all 1676 records were obtained representing approximately 95 per cent of all the farms located in the areas studied.

Per cent of farmers receiving bulletins.- That one or more bulletins had been received from the State agricultural college or the United States Department of Agriculture was reported by 62 per cent of the farmers interviewed. (Table 1.)

Table 1.- Bulletin distribution

Item	Total	Minnesota	Wisconsin	Ohio
Farm records obtained	1676	404	657	615
Percent receiving:				
Any bulletins	61.8	58.7	71.1	53.8
State bulletins	50.7	43.5	58.6	46.7
U.S.D.A. bulletins	36.6	39.6	40.8	30.1

Fifty-one per cent of the farmers had received bulletins from the State agricultural college or experiment station and 37 per cent had had bulletins from the United States Department of Agriculture. Of the three States involved in the study, the highest percentage of farmers receiving bulletins was in Wisconsin where 71 per cent had received them. This was largely due to wider circulation of State bulletins. The lowest percentage of farmers getting bulletins was in Ohio where 54 per cent of the farmers had received them. This decreased percentage was apparently largely due to the more limited distribution of the bulletins from the United States Department of Agriculture.

How bulletins were obtained.- Considering all farmers included in the study nearly 26 per cent of them received bulletins at some time through general or special mailing lists maintained by the college and experiment station, or on temporary mailing lists established by county agents. (Table 2.) Twenty-two per cent of the farmers had asked for bulletins either from the State college or the United States Department of Agriculture. Bulletin distribution in connection with meetings reached 9 per cent of the farmers. Nearly 17 per cent had gotten them from their county agent. About 20 per cent, or one farmer in five, had received United States Department of Agriculture bulletins from their congressman.

Table 2.- How bulletins were obtained

Method	Per cent of all farms			
	Total	Minnesota	Wisconsin	Ohio
Mailing list	25.8	11.4	34.7	25.7
Request	22.3	17.5	28.2	19.0
Meetings	9.3	10.1	11.0	6.8
County agent	16.8	23.2	15.7	13.6
Congressman	19.7	14.8	27.7	14.5
Other ways	9.1	5.9	14.5	5.5

Quite a difference exists in the methods of obtaining bulletins in the three States. Mailing lists were a more important means of distribution in Wisconsin and Ohio than in Minnesota. A higher percentage of Wisconsin farmers requested bulletins than was true of the farmers in the other two States. The county agent was responsible for distributing many more bulletins in Minnesota than in the other two States. In Wisconsin nearly twice as many farmers received bulletins from their congressmen. The schools and other agencies also were a more important factor in bulletin distribution in Wisconsin than in either Minnesota or Ohio. Three principal methods of distributing college and experiment station bulletins were reported: 41.8 per cent of the farmers having received them through mailing lists, 36.1 per cent by request, and 27.2 from the county agent. (Table 3.) In the case of the United States Department of Agriculture bulletins 29 per cent of the farmers receiving them obtained them

through request and 57.4 per cent received them from their congressman.

Table 3.- Sources of each class of bulletins received on 1,676 farms in Minnesota, Wisconsin, and Ohio

Source	Number farms	Per cent obtaining bulletins: Mailing list	Request	Meetings	County agent	Congressman
All bulletins	1034	41.8	36.1	15.0	27.2	32.0
State bulletins only	418	47.8	26.0	11.9	23.6	3.3
U.S.D.A. bulletins only	184	5.5	29.0	3.8	5.5	57.4
Both State and U.S.D.A. bulletins	432	51.4	48.8	22.9	39.1	47.9

Are bulletins used?- Of the 1035 farmers who had received one or more bulletins 86 per cent reported having read at least part of the bulletins received. (Table 4.) Fifty-six per cent of those receiving bulletins saved them for reference. That some difinite farm or home practice had been adopted due to information obtained from bulletins was reported by 62 per cent of the farmers getting bulletins. The percentage of farmers reading bulletins is practically the same in the different States. There is also little variation in the percentage of farmers adopting practices from bulletins, the lowest percentage being 55 and the highest 64. It is evident that not only do a large proportion of farmers getting bulletins read them but they also make practical application of the information carried in them.

Table 4.- Are bulletins used

Item	Total or average	Minnesota	Wisconsin	Ohio
Farmers receiving bulletins	1035	237	467	331
Per cent reading bulletins	86.2	86.1	86.7	85.5
Per cent saving bulletins	55.5	55.7	60.4	48.2
Per cent adopting practices from bulletins	61.8	55.2	63.4	64.2

It is interesting to compare these data with similar data from a study made in 1912 of 3,698 farmers in four sections of the country*. (Table 5.)

*Smith, C. Beaman and Atwood, H. K. - Relation of Agricultural Extension Agencies to Farm Practices. Circular 117. Bureau of Plant Industry, 1913.

At that time it was found that 43 per cent of the farmers reporting received bulletins, 84 per cent of whom read them and 48 per cent of whom adopted practices from them. The increased distribution of bulletins and the higher percentage of farmers who make practical application of the information contained in them, are largely due, no doubt, to the development of the nation-wide system of cooperative extension work beginning with 1914. With three out of every five farmers who receive bulletins making practical use of the information in them there is no longer room for doubt regarding the value of bulletins in extension teaching.

Table 5.- Bulletins received and information used

Prepared from data on 3,698 farms reported in 1912*

Section	Farmers visited	Per cent receiving bulletins	Per cent receiving bulletins who read them	Per cent of farmers receiving bulletins who adopt practices
North Atlantic States...	1,285	41.5	83.5	50.5
Southern States.....	1,001	41.7	79.4	35.5
North Central States....	707	38.0	93.3	56.1
West Central States	705	54.4	84.1	53.4
Total or average	3,698	43.3	84.2	48.2

Land tenure in relation to use of bulletins.- Whether the farm operator is the owner or a tenant seems to make an appreciable difference in the extent to which bulletins are received, 18 per cent more of the former than of the latter receiving bulletins. (Table 6.) Nearly 42 per cent of the farm-owner group interviewed adopted practices based on bulletin information. This was true of 30 per cent of the tenants. When the proportion of those making use of information received in bulletins is considered it is found to be approximately the same for both groups - 61.9 per cent for owners and 61.6 per cent for tenants. More owners get bulletins but apparently make no greater use of them than do tenants.

*Smith, C. Beaman and Atwood, H. K. - Relation of Agricultural Extension Agencies to Farm Practices. Circular 117. Bureau of Plant Industry, 1913.

Table 6.- Land tenure as related to use of bulletins

Reported by 1,676 farms in Minnesota, Wisconsin, and Ohio

Item	Per cent of all farms	Per cent receiving bulletins	Per cent of farmers in group using bulletin information	Ratio of takes to exposures
Owners	70.1	67.2	41.6	.619
Tenants	29.9	48.9	30.0	.616

Education as related to use of bulletins.- As might be expected, the educational training of the farmers and farm women plays an important part in the use of bulletins. Where the farmer or the farm woman or both had completed eighth or a higher grade, in school, from 77 to 81 per cent of the farms visited received bulletins, while the information contained in the bulletins was put into practical use on approximately 60 per cent of the farms. (Table 7.) Where both the farmer and the farm woman had completed eighth or a lower grade, bulletins had been received in 56 per cent of the cases, while 31 per cent of the farmers made use of the information. The proportion of those making use of information received in bulletins was nearly 40 per cent greater where more than eighth grade education had been attained. The fact, however, that more than half (55 per cent) of those with eighth grade education or less made use of information received in bulletins is evidence that a considerable portion of State and Federal bulletins have been written in simple language.

Table 7.- Education as related to use of bulletins

Reported by 1,676 farms im Minnesota, Wisconsin, and Ohio

Education of farmer and farm woman	Per cent of all farms	Per cent receiving bulletins	Per cent of farmers in group adopting practices	Ratio of takes to exposures
Both having attended common school	74.6	56.0	31.0	.552
One having attended common school, the other some higher school	15.2	76.9	58.8	.765
Both having more than common-school education	10.2	80.6	60.6	.752

Sources of bulletins as related to their use.- A somewhat higher proportion of the farmers getting State bulletins read them and made use of the information than was true of those receiving United States Department of Agriculture bulletins. It is probable that the State bulletins are somewhat more applicable to local conditions than bulletins written for more general use. (Table 8.) Methods followed in distributing State and Federal bulletins may also be a factor in this connection. (Table 9.) Where both State and Federal bulletins had been received they were reported read in nearly 96 per cent of the cases and the information was used by 77 per cent of those receiving them.

Table 8.- Sources of bulletins as related to their use.

Reported by 1,676 farms in Minnesota, Wisconsin, and Ohio

Source	Number	Per cent total farms	Per cent of farmers who receive them		
			Reading	Saving	Using Bulletins
State bulletins only..	419	26.0	83.2	46.2	57.4
U.S.D.A. bulletins only	183	10.9	70.1	39.1	34.8
Both State and U.S.D.A. bulletins	432	25.8	95.6	71.5	77.5

Use of bulletins influenced by method of distribution.- The study of the relation between the use of bulletins and methods of distributing them is limited to cases where bulletins had been received from but one source. Most farmers had received them from several sources.

Where bulletins had been requested from the State college and experiment station or the United States Department of Agriculture, a higher percentage (71 per cent) of the farmers made use of the information than was true of the farmers obtaining bulletins in other ways. (Table 9.) This is but natural, as the need for the bulletin already existed or it would not have been requested.

The next most efficient means of distributing bulletins is the county agent. Sixty-three per cent of the farmers receiving bulletins in this way made use of bulletin information. Where bulletins were obtained in connection with meetings use followed in 53 per cent of the cases. Practical use of bulletin information was reported from 51 per cent of the farms obtaining bulletins only through mailing lists.

Where bulletins had been obtained only from congressmen the information was put into practice in 25 per cent of the cases. Even this proportion of use to distribution is higher than some critics have estimated the use of bulletins however obtained. Considering the low cost of bulletins and the

probability that the people obtaining bulletins only through their congressman are harder to reach than the other groups represented, the bulletin is still a very efficient means of influencing farm practices. Since congressional distribution of farmers bulletins is outside the extension organization it need not be considered further in this connection.

Table 9.- Methods of obtaining bulletins as related to their use

Reported by 1,676 farms in Minnesota, Wisconsin, and Ohio

Method	Number	Per cent of farmers who received bulletins: Reading	Saving	Adopting Practices
Mailing list only	169	87.0	47.3	50.9
Requests only	151	91.4	63.6	70.9
Meetings only	36	91.7	44.4	52.8
County agent only	59	83.1	50.8	62.7
Congressman only	115	65.2	31.3	25.2

Unquestionably bulletins are employed most efficiently when sent out in response to definite request or used by the extension agent to supplement his other teaching agencies. The further distribution of bulletins in connection with suitable meetings and subject-matter mailing lists would seem to be good practice if the above data may be taken as representative.

Recommendations regarding bulletin distribution.- From the foregoing it is evident that the particular method of bulletin distribution is not so very important, after all. It is more a question of getting bulletins distributed. All extension studies which have been made to date emphasize the value of bulletins as a cheap means of influencing farmers and farm women to adopt improved practices.

Where very limited funds are available for printing bulletins it is doubtless best to limit distribution to requests and use of county agents. It may be good extension economy, however, to provide for a wider distribution than is possible through these two ways even if the necessary funds have to be taken from other teaching means and agencies. We are all interested in maximum returns from the extension dollar. So long as additional dollars spent on the printing and distribution of bulletins yield greater returns in terms of improved practices adopted than the same dollars would yield if expended in other ways, it would seem good business procedure to increase the allotment of funds to this teaching agency. It is well to remember, however, that bulletins kept on the shelf do not influence farm and home practices.

Comclusion

The agricultural college editor holds a strategic position in the extension organization. He is a specialist in those methods yielding largest returns per unit of time devoted to them, viz., news stories and bulletins. While the editor and his assistants do not write any large proportion of the total number of news articles or bulletins, they do have a decided influence on the quality and quantity of these means employed within the State.

In the past we may have been inclined to think of college editors largely as publicity agents for the institutions they represent who also perform certain editorial duties in connection with the publication of bulletins. Important as these duties may be they are completely overshadowed by the opportunity of actively influencing the adoption of improved practices on thousands of farms and in thousands of homes throughout the State by means of news stories and suitable college bulletins.

The editor has an important function to perform in connection with every extension project in seeing that the proper emphasis is placed upon those teaching methods most productive of results. Responsibility for teaching subject-matter specialists and county workers how to best employ these efficient teaching devices, and for training them in the art of news and bulletin writing also rests with the editor and his associates.

Because news stories and bulletins are such valued means of extension teaching it is the duty of college editors to carefully guard these agencies from debasing influences. With high standards for quality maintained and constantly improved, the extension editors of the future will wield an even greater influence upon farm and home practices.